

MEMORANDUM

TO: Dr. Mohamed Serageldin
U.S. EPA/CCPG

FROM: Greg LaFlam and Greg Pagett
Pacific Environmental Services, Inc. (PES)

DATE: July 28, 1997
P:/N809

SUBJECT: Large Appliances Integrated Rule - Summary of First Roundtable Meeting
(P-MACT/P-BAC) Phase

I. Purpose

The purpose of the first roundtable meeting for the U.S. Environmental Protection Agency's Large Appliances Integrated Rule was to bring together EPA and industry stakeholders to work together in the development of Federal air regulations for the large appliances surface coating industry and to allow interested parties an opportunity to present overviews of the surface coating industry, as well as to ask questions and raise issues of concern.

II. Location of Meeting and Participants

Place: US EPA ERC Building, Classroom 3
Research Triangle Park, North Carolina

Date: May 19, 1997, 10:00 a.m. - 3:30 p.m.

Participants: See attendee list (Attachment 1)

III. Discussion

Dr. Serageldin began the session by asking that all attendees introduce themselves. He gave a brief summary of the breakout session at the EPA's Surface Coating Workshop, for those who did not attend the session. Ms. Linda Herring gave a general overview of the presumptive Maximum Achievable Control Technology (P-MACT) determination process. The main intent of the P-MACT process is to obtain as much information as possible about the industry within a 6- to 8-month period. At the end of that period the EPA analyzes the data that have been collected and makes a MACT recommendation called P-MACT. The P-MACT recommendation is then provided to State and local agencies as a guidance document for use as-is or to modify. Ms. Herring also mentioned some concerns that had been brought to her

attention regarding the short timeframe for the development of P-MACT for the large appliance surface coating industry. She indicated that if, at the end of the period, people are comfortable with the P-MACT decision, the EPA will place it on the Technology Transfer Network (TTN), and if not, a decision will be made as to which direction to take. A presumptive Best Available Controls (P-BAC) decision will also be made, and this will be used to develop a national VOC regulation or to make a revision to the existing control techniques guidelines (CTG) document for this source category. Ms. Herring also mentioned that the EPA is coordinating the large appliance P-MACT effort with the other seven surface coating categories as much as possible. This is proving to be a challenge, and she asked for the industry's patience. With regard to the end result of the P-MACT process, Dr. Serageldin stressed the importance of industry participation in the EPA's data gathering process, especially site visits.

Mr. Robert McCrillis of the U.S. EPA's Office of Research and Development described a 2-part epoxy system which includes a metal primer and a metal baked enamel coating (Attachment 2). He said that these coatings surpass all VOC air quality regulations and urged any interested companies to contact the manufacturer of the coatings for additional information.

Mr. Timothy Hooker of General Electric (GE) Appliances began the industry presentations with an overview of the company. Mr. Hooker's presentation included such information as GE's manufacturing locations; coating processes, technologies, and application methods; coatings used; current requirements for surface coating processes; and recommendations for proceeding with regulation development (Attachment 3). Mr. Hooker's recommendations included:

- ▶ Delay making a P-MACT determination until all Section 114 information collection requests are completed to ensure all data have been obtained
- ▶ Porcelain enamel processes should not be treated the same as organic based coating processes
- ▶ Pretreatment and touchup coating operations should be exempt from MACT requirements

Q: Does GE coat any other types of products than "white goods" (household appliances)?

A: Only large appliance "white goods" are coated at GE Appliances plants. GE does some purchasing of pre-coated coils and "blanks" from outside suppliers.

Mr. Joe Mattingly of the Gas Appliance Manufacturers Association, Inc. (GAMA) gave a presentation which included the types of products GAMA represents and the different committees within GAMA, statistical highlights, regulatory information, and product manufacturer information (Attachment 4). GAMA represents most types of energy (heating)

producers on the market, including water heaters. Mr. Mattingly cited as a reference the Air Conditioning and Refrigeration Institute (ARI), which represents manufacturers of electric heating and cooling appliances. This includes the manufacturers of heat pumps, which are considered air conditioning equipment.

- Q: One issue of concern to Mr. Mattingly was knowing what processes are of interest to EPA; is EPA interested in the insulating materials for glass liners or just coatings?
- A: Dr. Serageldin said that the EPA is interested in the total emissions from each facility, which will include all of the processes.
- Q: Does GAMA coordinate with the Association of Home Appliance Manufacturers (AHAM)?
- A: GAMA and AHAM have issues of common interest that are coordinated pretty well between the two organizations, as well as having some common members (e.g., Carrier, Emerson Electric).

Mr. Greg LaFlam of PES gave a presentation on the large appliances integrated rule development process (Attachment 5). He stated that pre-MACT (also referred to as P-MACT) is a process of estimating MACT in a relatively short timeframe based on readily available data, and can help identify issues and data gaps. He also gave the proposed schedule for developing the MACT standards, or NESHAP. In addition to the NESHAP, the EPA will simultaneously develop a regulation to regulate volatile organic compound (VOC) emissions from the source category under section 183(e) of the 1990 Clean Air Act Amendments. This VOC regulation will require best available controls (BAC). The BAC VOC regulation is scheduled to be completed in the year 2001.

Ms. Julie Ignoli of Raytheon asked how "BAC" comes into play in this process. Mr. LaFlam repeated that this reflects the control level applicable to the VOC national regulation or the CTG revision. Mr. Jim Sell of the National Paint and Coatings Association (NPCA) expressed the opinion that BAC relates to EPA's term "best available control technology" (BACT) used in developing previous national regulations. However, BACT was applied to new construction (NSPS regulations), while BAC pertains to existing processes.

The following preliminary MACT schedule was presented:

<u>Milestone</u>	<u>Date</u>
Initial Roundtable Meeting	May 19, 1997
Second Roundtable Meeting	July 9, 1997
Draft P-MACT/P-BAC	August 18, 1997
Third Roundtable Meeting	September 4, 1997
Final P-MACT/P-BAC	September 30, 1997
NESHAP proposal	December 1999
NESHAP promulgation	November 2000

Mr. Sell gave a presentation on the different roles of stakeholders in the development of P-MACT. He commented that NPCA's role is to provide information to the Agency and end users (industry) because any regulation developed must be based on the use of the coating and what the end product will be used for. Mr. Sell had several concerns regarding the P-MACT determination, which are listed below:

- ▶ Timeframe/Definition - Industry uses several different types of coatings and if EPA includes all six proposed standard industrial classification (SIC) codes, 3631, 3632, 3633, 3639, 3585, and 3589, their concern is that P-MACT will provide State and local agencies with misguidance due to the variety of coatings and the different requirements for their use.
- ▶ The EPA should not be afraid to say "we don't know" when the P-MACT determination comes due.
- ▶ End users are the driving force for coating development due to various requirements for each product (e.g., a range top or range hood must have certain flame retardant characteristics that a refrigerator or washer would not). Surface coaters use coatings in a manner that will allow them to reach an acceptable bottom line.

Q: What will benefit industry end users the most?

A: Flexibility and continuing to use coatings that work.

Mr. Greg Pagett of Pacific Environmental Services, Inc. (PES) gave an overview of the goals for the information gathering phase and what type of data the EPA is looking for in order to make a P-MACT determination (Attachment 6). The main focus in the near term is on developing an industry profile. A primary concern of the work team is to determine which SIC codes should be included in the source category and what defines a large appliance. This overview led into a discussion of what information is needed on the coating contents and emissions produced. Suggestions for data sources were emissions inventories, permit data, or any other source of emissions data. Dr. Serageldin emphasized that EPA must know the emissions from each unit operation system (UOS). He stated that EPA did not want to leave anything out at this point. At first the focus will be on quantifying the emissions from each UOS, and then on dividing these totals into a contribution from each individual operation (e.g., touchup - 2%, pretreatment - 25%, etc.).

Q: How much information can industry and EPA pull together between now and October in order to make a P-MACT determination?

A: Jim Sell and Hank Naour responded that if just "white goods" (kitchen and laundry products) were assumed to compose a large appliance, then the definition could later be expanded by bringing in other products, if deemed necessary.

Mr. Hank Nauer of the Illinois EPA agreed that if you first focus on baseline

information, such as Title V permits for “white goods,” you could then consider expanding your focus after the P-MACT determination has been made.

Mr. Sell felt that if the work team focuses on “white goods” for P-MACT, there is nothing precluding the EPA from including other items at a later time. He gave the Wood Furniture MACT as an example.

Mr. Mattingly agreed and indicated that he would like to know if EPA was going to remove the two additional SIC codes to determine whether he needs to continue participation in the rule making process.

Dr. Serageldin stated, however, that he did not want to put anything in writing to indicate the focus will be on a certain limited group because some may object to changing the criteria along the way.

He said that if EPA makes a decision now that only includes the “white goods” and then later pull the others back in it will be deceiving, so EPA needs to include everything for now unless EPA can identify why it does not belong with this category.

Mr. Hooker stated that EPA should make sure they have correct data to reach the P-MACT conclusion, rather than trying to meet a milestone. Dr. Serageldin stated that P-MACT is just to provide interim guidance to the State agencies that must make case-by-case MACT determinations. Each State has to use its own judgment to make a final decision as to how the regulation will be adopted or implemented.

Q: Ms. Julie Ignoli of Raytheon, Amana Division, asked if there was any way to have more involvement by State agencies.

A: Dr. Serageldin stated that EPA is trying to get them involved, and indicated that at present the State active participation is limited to two states: Florida and Illinois. He also stated that since States would be implementing the regulations and writing permits for regulated sources in many cases, their input is very important and he asked industry to try to speak with their State contacts and make them aware of what the work team is doing to try to increase their interest.

Dr. Serageldin said that the EPA plans to develop and send out a survey to industry, requesting detailed information on processes, emissions, and control measures currently in use. He pointed out that the questions in the survey are necessary for the Agency to establish baseline emissions so that emission reductions due to controls can be determined. Dr. Serageldin also stated that the EPA and its contractor wanted to arrange plant visits in order to get some initial orientation and obtain current information on the processes and emissions in this industry. He requested industry’s help in identifying representative facilities to visit. He

also stated that the site visits will help the EPA in the development of the survey before it is sent out under the authority of Section 114 of the Clean Air Act.

Q: Will the data from the Section 114 information collection be available prior to the P-MACT determination?

A: Probably not; EPA will make a decision based on the data that are available at that time.

Ms. Herring again stated that if an adequate P-MACT determination cannot be made, the EPA will make a decision as to how to proceed at that time. If P-MACT is deemed not to be necessary, EPA will go straight to MACT, but current guidance is to begin with a P-MACT decision.

Mr. Mattingly stated that he was very concerned to think that States would adopt P-MACT into their regulations based on "best guess" information.

Mr. Sell of NPCA stated that the wording in the surveys is very crucial. The questionnaire should focus on things that will give us more than just a "best guess."

Dr. Serageldin stated that this is why it is an open process, so industry will have the opportunity to guide us. It is also why EPA needs emissions information from industry now, in order to have something concrete to go on.

Mr. Robert Karwowski of Whirlpool Corporation gave a presentation on large appliance MACT from an industry viewpoint (Attachment 7). Mr. Karwowski began his discussion with the definition of a large appliance from the Large Appliance New Source Performance Standard (NSPS) regulation and expressed a concern with deviating from the NSPS definition, which only included SIC codes 3631, 3632, 3633, and 3639, for this integrated rule development process. Mr. Karwowski also discussed the manufacturing process and emission controls. In closing, he stated that he thought the P-MACT EPA/Industry/States work team was an excellent idea. Mr. Karwowski's recommendations are listed below:

- ▶ Concentrate on paint formulation, rather than end-of-pipe controls
- ▶ Should be a multi-year window in selecting the MACT floor (e.g., 1990-1995)
- ▶ Need an unchanging MACT chemicals list, so coating developers have a fixed target
- ▶ The work team should focus on setting standards, instead of establishment of a large appliance definition that is different from the NSPS definition

Open Discussion:

The open discussion began by allowing those who had not made presentations to introduce themselves and to tell the rest of the team about their products, facilities, and interest in this rule development. These participants included Mr. Oscar Robertson from White Consolidated, Mr. Ray Rusek from Maytag, Mr. Kenneth Gabele from Sherwin-Williams, and Ms. Julie Ignoli from Raytheon-Amana. White Consolidated manufactures appliances under the brand names Electrolux, Frigidaire, Westinghouse, and Tappan. They operate 10 "white goods" facilities. Maytag produces appliances under its own name, as well as Admiral, Magic Chef, Norge, and Jen-Air. White goods are produced at four locations, one of which purchases pre-coated coil (some locations involve multiple EPA ID numbers). Sherwin-Williams is a peripheral supplier of coatings to this industry (very little powder coating). Mr. Gabele said that major powder suppliers are Ferro, Glidden, and Lilly. Raytheon Appliances operates seven facilities (which include HVAC and commercial laundry manufacture).

Q: Several people had questions as to what data the EPA needs to collect.

A: Dr. Serageldin stated that EPA needs to identify the processes and emitting activities at facilities. As stated earlier, EPA needs to identify unit operation systems and put data in blocks so that EPA can determine the amount of emissions contributed by each unit operation (e.g., cleaning and pretreatment, spray booth, etc.).

Q: Who makes the policy decisions, the EPA or the Contractor?

A: The EPA, but we work together as a team.

Q: Would Title V permit information be useful?

A: Mr. Pagett said that these permits could have some useful information, but industry members indicated that it would likely be incomplete.

Q: If industry provides data about what each facility does, might these data reveal trade secrets?

A: Dr. Serageldin stated that any information that was submitted could be marked confidential and would be protected under 40 CFR Part 2, Subpart B - Confidentiality of Business Information.

Comment: If the EPA were to define explicitly what is needed, the industry could get together and come up with a general description of how they do business.

Dr. Serageldin stated that the EPA will develop a short questionnaire to send out to the work team and other industry members that are present at the meeting to detail the type of information needed on processes, emissions, and control measures currently in use.

Q: Mr. Karwowski asked whether the work team would have the opportunity to comment

on the questionnaire.

A: Dr. Serageldin said that this input would be helpful, and that the questionnaire would be sent as a draft for this group to review and comment on within 10 days from today (i.e., by May 29, 1997).

Q: Mr. Ray Rusek of Maytag asked what was going to be included. Will the EPA consider what Mr. Karwowski stated earlier regarding exemptions?

A: Dr. Serageldin said that initially the EPA would focus on painting and cleaning, but all sources of air pollution would be investigated. Determinations will be made at a later date as to what sources will be included in the MACT standard.

Q: What about emission reductions that have already been made by industry, for example under the EPA's 33/50 program? Emissions have been reduced approximately 80 percent since 1990 at many facilities. This might affect selection of the base year.

A: EPA will look at what the emissions were prior to these improvements, but EPA makes no commitment to consider those in the selection of a base year.

Q: How will you determine what improvements were made? Will you talk to each of us individually to see where we were in 1990 and where we are now?

A: EPA will look at existing sources through site visits, questionnaires, and any other available emission inventory data.

Q: What about the definition of a large appliance? How did the two new SIC codes (3585, 3589) get included in this category?

A: The Scoping Study performed in 1996 listed the two additional codes. They may have been derived from the Compliance Sector Notebook Project, Profile of the Fabricated Metal Products Industry, a recent study by the EPA's Office of Compliance. The EPA will look further into the origin of the listed codes.

Q: Mr. Karwowski stated that coating performance specifications were the main reason the EPA previously defined the industry to include only "white goods," and he did not see how the deadlines can be met if EPA includes all six SIC codes.

A: Dr. Serageldin stated that if there were a good sound reason to not include elements of the other two SIC codes, then they will be taken out of the category, but the products in those codes will have to be covered by another regulated category, such as miscellaneous metal parts.

Participants noted that no companies representing these other industries were present at the meeting.

Dr. Serageldin asked if industry could help EPA identify or contact other industries

that will be affected. Mr. Mattingly of GAMA said he could notify GAMA members.

Dr. Serageldin then concluded the first roundtable meeting.

A Summary of concerns and issues expressed at the first roundtable meeting is given below:

- ▶ Industry finds the use of low VOC coatings (presently used to comply with the New Source Performance Standards (NSPS) requirements, to be more cost-effective than the use of add-on control equipment.
- ▶ This industry counts primarily on paint formulation changes to reduce emissions.
- ▶ The industry would like EPA to use the same definition of a large appliance as was used in the NSPS .
- ▶ For appliance product market information on water heaters, air conditioners, etc. there is an annual report in Appliance magazine.

CONCLUDING REMARKS

- ▶ Dr. Serageldin said that the EPA's Technology Transfer Network (TTN) bulletin board would be used to keep interested parties up-to-date on developments in this rulemaking.
- ▶ The second roundtable meeting is tentatively scheduled for July 9, 1997. (Note: The tentative date was subsequently changed to July 30, 1997).
- ▶ The EPA will send out a draft industry survey questionnaire to the companies represented at the meeting within 10 days after the meeting for industry comment and subsequent response.

Attachment 1
Attendee List

**U.S. EPA LARGE APPLIANCE COATING REGULATIONS
FIRST ROUNDTABLE MEETING
ATTENDEE LIST**

Name	Company	Mailing Address	Telephone/Fax Number	e-mail Address
Kenneth Gabele Administrator, Regulatory Information Services	The Sherwin-Williams Co.	101 Prospect Avenue Cleveland, OH 44115	(216) 566-3316 fax (216) 566-2920	klgabele@sherwin.com
Linda Herring	US EPA	OAQPS/ESD/CCPG (MD-13) Research Triangle Park, NC 27711	(919) 541-5358 fax (919) 541-5689	
Karen Holmes	EC/R Incorporated	2327 Englert Drive Suite 100 Durham, NC 27713	(919) 484-0222 ext. 310 fax (919) 484-0122	ecr-rtp@mindspring.com
Tim Hooker	General Electric	AP65-100 Louisville, KY 40225	(502) 452-4797 fax (502) 452-0441	
Julie Ignoli	Raytheon Appliances	2800 220th Trail Amana, IA 52204	(319) 622-2785 fax (319) 622-2180	N/A
Robert Karwowski	Whirlpool Corporation	2000 M-63 Benton Harbor, MI 49022	(616) 923-3614 fax (616) 923-5486	Robert_J_karwowski@email.whirlpool.com
Greg LaFlam	Pacific Environmental Services, Inc.	5001 S. Miami Blvd. PO Box 12077 Research Triangle Park, NC 27709-2077	(919) 941-0333 fax (919) 941-0234	glaflam@rtp.pes.com
Judy Lee	Pacific Environmental Services, Inc.	5001 S. Miami Blvd. PO Box 12077 Research Triangle Park, NC 27709-2077	(919) 941-0333 fax (919) 941-0234	jlee@rtp.pes.com
Joe Mattingly Director of Government Affairs & General Counsel	Gas Appliance Manufacturers Association (GAMA)	1901 North Moore Street Suite 1100 Arlington, VA 22209	(703) 525-9565 fax (703) 525-0718	gamagov@aol.com

Name	Company	Mailing Address	Telephone/Fax Number	e-mail Address
Robert C. McCrillis	US EPA	APPCD/ORD (MD-61) Research Triangle Park, NC 27711	(919) 541-2733 fax (919) 541-0359	
Greg Pagett	Pacific Environmental Services, Inc.	5001 S. Miami Blvd. PO Box 12077 Research Triangle Park, NC 27709-2077	(919) 941-0333 fax (919) 941-0234	gpagett@rtp.pes.com
Hank Naour (Called In)	Illinois EPA, Office Of Air Pollution	Post Office Box 19506 Springfield, IL 62794-9506	(217) 785-4140 fax (217) 524-5023	
Bob Nelson (Called In)	NPCA	1500 Rhode Island Ave., NW Washington, DC 20005-5597	(202) 462-6272 fax (202) 462-8549	bnelson@paint.org
Oscar Robertson	White Consolidated Ind.	11770 Berea Road Cleveland, OH 44111	(216) 252-8778 fax (216) 252-8160	
Bob Rose (Called In)	U.S. EPA	OSDBU (1230C)	(703) 305-5511	
Ray Rusek	Maytag Appliances	403 West Fourth Street North Newton, IA 50208	(515) 791-5749 fax (515) 791-5898	usmtg29t@ibmmail.com
Jim Sell	NPCA	1500 Rhode Island Ave., NW Washington, DC 20005-5597	(202) 462-6272 fax (202) 462-8549	jsell@paint.org
Mohamed Serageldin	U.S. EPA	OAQPS/ESD/CCPG (MD-13) Research Triangle Park, NC 27711	(919) 541-2379 fax (919) 541-5689	Serageldin.Mohamed@epamail.epa.gov

Attachment 2
Epoxy Coating System Materials
(not available electronically)

Attachment 3
Tim Hooker Presentation (GE Appliances)
(not available electronically)

Attachment 4
Joe Mattingly Presentation (Gas Appliance Manufacturers Association)
(not available electronically)

Attachment 5
Greg LaFlam Presentation (Pacific Environmental Services)

***EPA/INDUSTRY
ROUNDTABLE MEETING
NO. 1***

***Large Appliances
Integrated Rule
Development***

May 19, 1997

RULE DEVELOPMENT OVERVIEW

NESHAP

- ***Information Gathering***
- ***MACT Floors***
- ***Regulatory Alternatives, P-MACT, and MACT***
- ***Regulatory Team - Industry and State Agency Involvement***
- ***Impact Analyses***
- ***Proposal***
- ***Promulgation***
- ***Implementation Guidance***

***RULE DEVELOPMENT OVERVIEW
(Concluded)***

CONTROL TECHNIQUES GUIDELINES (CTG)

- ***Information Gathering***
- ***Regulatory Alternatives***
- ***Impact Analyses***
- ***CTG Release***

INFORMATION GATHERING

- ***Literature search***
- ***Databases (TRIS)***
- ***Plant visits***
- ***Questionnaires***
- ***Trade associations***
- ***Source testing***

MACT FLOORS

- ***Existing***
 - ***average of the best 12% (≥ 30 sources)***
 - ***average of the best 5 sources (< 30 sources)***

- ***New***
 - ***best similar source***

REGULATORY ALTERNATIVES, P-MACT, AND MACT

- ***P-MACT = presumptive MACT (an educated guess as to what the standard will be)***
- ***MACT = maximum achievable control technology and a synonym for the selected standard***
- ***Regulatory Alternatives are possibilities for MACT - the one selected for the standard is called MACT***
- ***Standard is a combination of control level (e.g., 98% reduction) and applicability criteria (e.g., all process vents with emissions greater than 5 megagrams [Mg]* per year)***

*** 9.1 Mg = 10 tons**

IMPACT ANALYSES

- ***Model plant vs. Specific facility***

- ***Baseline emissions***

- ***Costs***
 - ***MACT floor***
 - ***above MACT floor***

- ***Economic Impacts***

- ***Environmental Impacts***
 - ***air***
 - ***water***
 - ***energy***
 - ***noise***

PROPOSAL

- ***Proposal BID***
- ***Preamble***
- ***Regulation***
- ***Supporting Documentation***

PROMULGATION

- ***Public Comment Period and Hearing***
- ***Rule Revisions***
- ***Promulgation BID***
- ***Preamble***
- ***Final Regulation***

IMPLEMENTATION GUIDANCE

- ***Collection of questions and answers***
- ***Flow diagrams of parts of the rule***
- ***Materials used for facilitating the Title V permitting process***

1997 PROPOSED SCHEDULE

<i><u>DATE</u></i>	<i><u>MILESTONE</u></i>
<i>5/19/97</i>	<i>Initial Roundtable Meeting</i>
<i>7/09/97</i>	<i>Second Roundtable Meeting</i>
<i>8/18/97</i>	<i>Draft P-MACT/P-BAC</i>
<i>9/04/97</i>	<i>Third Roundtable Meeting</i>
<i>9/30/97</i>	<i>Final P-MACT/P-BAC</i>

The date of the Second Roundtable Meeting has been rescheduled for 7/30/97.

Attachment 6
Greg Pagett Presentation (Pacific Environmental Services)
(not all material available electronically)

Attachment 7
Robert Karwowski Presentation (Whirlpool Corporation)
(not available electronically)